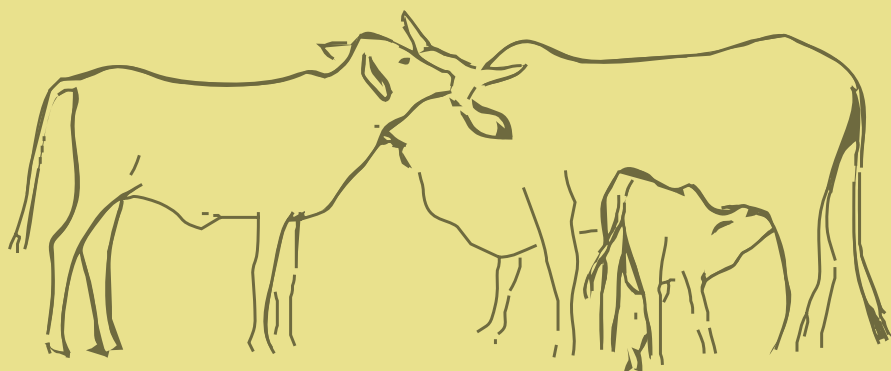


# ANIMAL WELFARE & MANAGEMENT



**B H M Patel**

**S B Prasanna**

**Mahadevappa D Gouri**

---

# Animal Welfare and Management

---

**B H M Patel**

Senior Scientist, LPM Section  
IVRI, Izatnagar, Bareilly

**S B Prasanna**

Asst. Professor, (LPM)  
Veterinary College, Hassan  
KVAFSU, Karnataka

and

**Mahadevappa D Gouri**

Asst. Professor (LPM)  
Veterinary College, Hassan  
KVAFSU, Karnataka



**NEW INDIA PUBLISHING AGENCY**

New Delhi – 110 034



**NEW INDIA PUBLISHING AGENCY**

101, Vikas Surya Plaza, CU Block, LSC Market

Pitam Pura, New Delhi 110 034, India

Phone: + 91 (11)27 34 17 17 Fax: + 91(11) 27 34 16 16

Email: [info@nipabooks.com](mailto:info@nipabooks.com)

Web: [www.nipabooks.com](http://www.nipabooks.com)

Feedback at [feedbacks@nipabooks.com](mailto:feedbacks@nipabooks.com)

© **Publisher, 2015**

**ISBN: 978-81-930144-6-2**

All rights reserved, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior written permission of the publisher or the copyright holder.

This book contains information obtained from authentic and highly regarded sources. Reasonable efforts have been made to publish reliable data and information, but the author/s, editor/s and publisher cannot assume responsibility for the validity of all materials or the consequences of their use. The author/s, editor/s and publisher have attempted to trace and acknowledge the copyright holders of all material reproduced in this publication and apologize to copyright holders if permission and acknowledgements to publish in this form have not been taken. If any copyright material has not been acknowledged please write and let us know so we may rectify it, in subsequent reprints.

**Trademark notice:** Presentations, logos (the way they are written/presented), in this book are under the trademarks of the publisher and hence, if copied/resembled the copier will be prosecuted under the law.

Composed, Designed and Printed in India

---

# Contents

---

*Foreword* ..... v

*Preface* ..... vii

**1 Animal Welfare and Ethics ..... 1**

1 History ..... 1

2 Definitions of Animal Welfare ..... 3

3 Animal Welfare Versus Animal Rights ..... 6

4 Perspectives of Animal Welfare ..... 7

5 Animal Ethics ..... 7

6 Importance of Animal Welfare ..... 10

**2 Human and Animal Welfare in Relation to Ecosystem and Environmental Factors ..... 11**

1 Human and Animal Interactions in the Ecosystem ..... 11

2 Domestication in Relation to Human-Animal Welfare ..... 16

3 Environmental Factors ..... 18

4 Climate and its Role in Design of the Building ..... 20

5 Animal Welfare Addressing the Climate Change ..... 21

**3 Role of Veterinarians in Animal Welfare ..... 23**



<b>4</b>	<b>Prevention of Cruelty to Animal (PCA) Act 1960 .....</b>	<b>29</b>
	Chapter I - Preliminary .....	29
	Chapter II - Animal Welfare Board of India .....	30
	Chapter III - Cruelty to Animal Generally .....	31
	Chapter IV - Experimentation of Animals .....	33
	Chapter V - Performing Animals .....	35
	Chapter VI - Miscellaneous .....	37
<b>5</b>	<b>Animal Welfare Board of India, Their Role and Functions .....</b>	<b>43</b>
	1 Objective of the Board .....	43
	2 Board Members .....	43
	3 Functions of the Board shall be .....	44
	4 Guidelines of the functioning of the board .....	45
	5 Publications .....	47
	6 Awards .....	47
	7 Honorary Animal Welfare Officer (HAWO) .....	47
	8 Identity Cards to Dog Feeders/Colony Care Takers .....	48
<b>6</b>	<b>Role and Function of Committee for the Purpose of Controlling and Supervision of Experiments in Animals (CPCSEA) .....</b>	<b>49</b>
	1 Objectives IAEC .....	50
	2 Functions of IAEC .....	50
	3 Composition of IAEC .....	51
	4 Duration of IAEC .....	51
	5 Review and Decision .....	51
	6 Record of Breeding of Animals .....	51
<b>7</b>	<b>Rules, Regulations and Laws on Animal Welfare .....</b>	<b>55</b>
	1 Law .....	55
	2 Prevention of Cruelty to Animals Act (1960) .....	56
	3 Article 51-A(7) .....	57
	4 Legislations on Cattle Slaughter in India .....	57
	5 Wildlife Protection Act, 1972 .....	57
	6 Convention on International Trade in Endangered Species (CITES) .....	57

7	Indian Penal Code (IPC, 1860) .....	58
8	The Police Acts .....	58
9	The Municipal Corporation Acts .....	58
10	Food Safety and Standards Act (FSSA), 2006 .....	58
11	Cattle Trespass (Amendment) Act 1921 .....	58
<b>8</b>	<b>Protection and Welfare of Performing Animals .....</b>	<b>61</b>
	Domestic Animals .....	61
1	Animal Fights .....	61
2	Wild Animals/Circus Animals .....	63
3	Street Entertainment .....	63
4	Prevention of Cruelty Against Performing Animals .....	66
5	Related Rules .....	66
	Performing Animals Rules, 1973 .....	66
	Performing Animals (Registration) Rules, 2001 (Includes AMENDMENT, 2001-2002) .....	67
<b>9</b>	<b>Protection and Welfare of Working Animals .....</b>	<b>71</b>
1	Major Common Issues Regarding the Welfare of India's Working Animals .....	72
2	Species Specific Welfare Issues .....	73
3	Relief for Working Animals Through Changing Attitudes and Practices .....	75
4	Related Rules (offence wise) .....	76
5	Related Rules .....	78
	The Prevention of Cruelty to Draught and Pack Animals Rules, 1965 (As Amended up to 9th December, 1968) .....	78
	The Prevention of Cruelty to Animals (Licensing of Farriers) Rules, 1965 .....	80
<b>10</b>	<b>Pet and Companion Animal Welfare .....</b>	<b>81</b>
1	Street /Stray Dogs .....	81
2	Owned Dogs .....	83
3	Mutilation .....	86
4	Related Rules .....	88

<b>11</b>	<b>Animal Welfare Organizations .....</b>	<b>91</b>
1	Society for Prevention of Cruelty to Animals (SPCA) .....	92
2	Animal Welfare Organization (AWO) in General .....	92
3	Related Rules .....	101
	Establishment and Regulation of Societies for Prevention of Cruelty to Animals Rules, 2001 .....	101
<b>12</b>	<b>Protection and Welfare of Cattle and Buffaloes .....</b>	<b>103</b>
1	Livestock Housing .....	103
2	Physical Conditions .....	106
3	Drying of Cow .....	109
4	Optimum Breeding Policy .....	109
5	Reproductive Tools to Enhance Genetic Gain .....	110
6	Nutritional Issues and Welfare of Livestock .....	110
7	Handling of Livestock and their Transport .....	111
8	Genetic Engineering Tools in Relation to Welfare of Livestock ...	112
9	Livestock Slaughtering and their Welfare .....	112
10	Euthanasia .....	112
11	Biosecurity Arrangements .....	113
12	Important Welfare Issues in Buffalo Management .....	113
13	Related Rules .....	113
	Registration of Cattle Premises Rule, 1978 .....	113
<b>13</b>	<b>Protection and Welfare of Sheep and Goat .....</b>	<b>115</b>
1	Extensive System of Rearing .....	115
2	Semi Intensive Systems .....	116
3	Intensive System .....	120
<b>14</b>	<b>Protection and Welfare of Pigs .....</b>	<b>121</b>
1	Problems with Extensive Rearing of Pigs .....	122
2	Problems with Intensive Rearing of Pigs .....	122
3	Slaughtering Method .....	128
<b>15</b>	<b>Protection and Welfare of Poultry .....</b>	<b>131</b>
1	Broilers .....	131

2	Layers .....	134
3	Debeaking .....	135
4	Others .....	136
<b>16</b>	<b>Application of Behavioural Knowledge on Animal Handling and Restraining .....</b>	<b>137</b>
	Importance of Behaviour and Welfare .....	138
	Factors Affecting Handling and Restraining in Livestock .....	138
1	Species .....	138
2	Categories of Livestock .....	138
3	Type of Rearing Practices .....	139
4	Handler's Attitude .....	139
5	Facilities .....	139
6	Application of Behavioral Knowledge .....	139
7	Application of Behavioral Knowledge in Restraining the Livestock .....	142
8	Use of Proper Casting Methods .....	143
9	Application of Behavioral Knowledge in Designing Handling Facility .....	144
10	Loading and Unloading Facility Area .....	144
11	Avoidance of Handling and Restraining Problems through Proper Planning .....	144
12	Related Rules .....	145
	Prevention of Cruelty (Capture of Animal) Rules, 1979 .....	145
<b>17</b>	<b>Protection of Wildlife in Nature and Captivity .....</b>	<b>147</b>
1	Welfare Issues in Free Living Wild Animals .....	147
2	Welfare Issues in Captive Animals .....	152
	Behavioural Enrichment through Feeding Techniques .....	155
<b>18</b>	<b>The Wildlife (Protection) Act 1972 .....</b>	<b>157</b>
	Chapter I (Preliminary) .....	157
	Chapter II (Authorities to be appointed or constituted under this Act) .	158
	Chapter III (Hunting of Wild animals) .....	158
	Chapter IV (Sanctuaries, National Park and Closed Areas) .....	159
	Chapter IVA (Central Zoo Authority and Recognition of Zoos) .....	160
	Chapter V (Trade or Commerce in Wild Animals) .....	161

Chapter VI (Prevention and Detection of Offences) .....	162
Chapter VII Miscellaneous .....	163
<b>19 Welfare of Animals During Transportation .....</b>	<b>165</b>
1 Welfare Issues Related to Transportation .....	165
2 Poor Transportation and its Effect .....	166
3 Planning for Proper Transportation of Animals .....	166
4 During Journey .....	169
5 Post Journey Treatment of Animals .....	170
6 Training and Competence .....	170
7 Responsibilities .....	170
8 Modes of Transportation .....	170
9 Species (Either vehicle/rail/ship) .....	174
<b>20 Welfare Related to Animal Slaughtering and Slaughter House. 185</b>	
1 Slaughtering Methods .....	186
2 Species .....	187
3 Related Rules .....	188
Legislations on cattle slaughter in India .....	188
Prevention of cruelty to animals (Slaughter House) Rules, 2001	188
Animals not to be slaughtered .....	193
Slaughter house .....	193
Slaughter house building .....	194
Engagement in slaughter house .....	195
Inspection of slaughter house .....	195
<b>21 Animal Welfare During Natural Calamities and Disaster Management .....</b>	<b>197</b>
1 Classification of Disasters .....	198
2 Scenario of Natural Disaster Management in India .....	198
3 Severity Indices (SI) for Disasters in India .....	198
4 Strategies for Management of Livestock in Disaster Prone areas	198
5 Caring for Livestock during Disaster .....	200
6 Sensitivity .....	201
7 Feed, Safety and Shelter .....	201
8 Proper Animal Evacuation Policy Rules .....	202

9	Disease Prevention and Control .....	203
10	Proper Carcass Disposal .....	203
11	Role of Different Agencies in Disaster .....	204
12	Role of Veterinarians in Disaster .....	206
13	Phases of Disaster Management (FEMA, 1998).....	206
<b>22</b>	<b>Assessment of Animal Welfare and Audit Programme in the Livestock Farms .....</b>	<b>209</b>
	Assessment Techniques .....	209
1	Welfare Assessment using Five Freedoms .....	209
2	Welfare Assessment using Production Measures .....	211
3	Welfare Assessment using Physiological Measures .....	211
4	Welfare Assessment using Behavioural Measures .....	212
	Effective Animal Welfare Auditing Programmes .....	213
<b>23</b>	<b>Abnormal Behaviour in Animals .....</b>	<b>215</b>
	Different Stereotypes Seen in Animals .....	217
1	Horse .....	217
2	Poultry .....	218
3	Cattle.....	219
4	Pig.....	220
5	Sheep .....	222
6	Economic Impact of Stereotypes in Animals .....	222
7	Treatment and Control .....	223
<b>24</b>	<b>Alternatives to Animal Usage in Teaching and Research .....</b>	<b>225</b>
1	Alternative to Teaching .....	225
2	Alternatives to Research .....	230
	<b>Annexures.....</b>	<b>233</b>
	Schedules list for wild animals .....	233
	Schedule - I.....	233
	Part – I -Mammals (41) .....	233
	Part II-Amphibians and Reptiles. (3) .....	234
	Part III - Birds (18) .....	234
	Schedule – II includes special game animals mentioned in two parts ...	234

Special Game .....	234
Part – I (23) .....	234
Part II (3) .....	235
Schedule – III .....	235
Schedule - IV .....	235
Schedule – V .....	236
Schedule – VI .....	236
<b>Abbreviations .....</b>	<b>241</b>
<b>Terminologies.....</b>	<b>243</b>
<b>Bibliography.....</b>	<b>249</b>
<b>Index .....</b>	<b>255</b>

# ANIMAL WELFARE & MANAGEMENT

Thus book will serve the long standing need of the students, teachers, research workers and other stake holders. The book will be helpful to the students and researchers in developing basic understanding of Animal Welfare sciences.

**2015, 268pages, figures,  
tables, index, 25cm**

**B H M Patel**

Senior Scientist, LPM Section, IVRI,  
Izatnagar, Bareilly,  
Uttar Pradesh

**S B Prasanna**

Asst. Professor, (LPM), Veterinary  
College, Hassan, KVAFSU,  
Karnataka

**Mahadevappa D Gouri**

Asst. Professor (LPM), Veterinary  
College, Hassan, KVAFSU,  
Karnataka

## CONTENTS AT A GLANCE

- Animal Welfare and Ethics
- Human and Animal Welfare in Relation to Ecosystem and Environmental Factors
- Role of Veterinarians in Animal Welfare
- Prevention of Cruelty to Animal (PCA) Act 1960
- Animal Welfare Board of India, Their Role and Functions
- Role and Function of Committee for the Purpose of Controlling and Supervision of Experiments in Animals (CPCSEA)
- Rules, Regulations and Laws on Animal Welfare
- Protection and Welfare of Performing Animals
- Protection and Welfare of Working Animals
- Pet and Companion Animal Welfare
- Animal Welfare Organizations
- Protection and Welfare of Cattle and Buffaloes
- Protection and Welfare of Sheep and Goat
- Protection and Welfare of Pigs
- Protection and Welfare of Poultry
- Application of Behavioural Knowledge on Animal Handling and Restraining
- Protection of Wildlife in Nature and Captivity
- The Wildlife (Protection) Act 1972
- Welfare of Animals During Transportation
- Welfare Related to Animal Slaughtering and Slaughter House
- Animal Welfare During Natural Calamities and Disaster Management
- Assessment of Animal Welfare and Audit Programme in the Livestock Farms
- Abnormal Behaviour in Animals
- Alternatives to Animal Usage in Teaching and Research



**NEW INDIA PUBLISHING AGENCY**

101, Vikas Surya Plaza, CU Block, L.S.C. Market

Pitam Pura, New Delhi-110 034, India

Tel. : +91(11) 27341717, Fax : +91(11) 27341616

E-mail : [info@nipabooks.com](mailto:info@nipabooks.com)

Web : [www.nipabooks.com](http://www.nipabooks.com)

ISBN 9788193014462

